

Sec. 22-121. - Adoption of the National Electric Code.

The [2011] National Electric Code, copyrighted by the National Fire Protection Association, Inc., save and except the amendments set forth in exhibit "A", attached hereto and incorporated herein for all purposes ("2011 National Electric Code"), is hereby adopted, prescribing regulations applicable to all commercial or residential structures and existing premises and constitutes minimum requirements and standards for construction applications. The 2011 National Electric Code is made a part of this article as if fully set forth herein. One copy of the 2011 National Electric Code is on file in the office of the city secretary being marked and designated as the 2011 National Electric Code. ; Ord. No. 2012-40, §§ 2, 3, 9-25-2012; Ord. No. 2013-13, §§ 2, 3, 2-26-2013)

Sec. 22-122. - Amendments to the National Electrical Code.

The following articles, paragraphs, and sentences of the 2011 National Electrical Code (NEC) are hereby amended as follows.

Article 100, Part 1; amend the following definition:

Intersystem Bonding Termination. A device that provides a means for connecting bonding conductors for communication systems and other systems such as metallic gas piping systems to the grounding electrode system.

(REASON FOR CHANGE: To allow for a termination point for other bonding conductors in addition to communication systems that are required by the various model codes.)

Article 110.2; amend or to read as follows:

110.2; Approval. The conductors and equipment required or permitted by this Code shall be acceptable only if approved. Approval of equipment may be evident by listing and labeling of equipment by a Nationally Recognized Testing Lab (NRTL) with a certification mark of that laboratory or a qualified third party inspection agency approved by the AHJ.

Exception: Unlisted equipment that is relocated to another location within a jurisdiction or is field modified is subject to the approval by the AHJ. The approval may be by a field evaluation by a NRTL or qualified third party inspection agency approved by the AHJ.

Manufacturer's self-certification of any equipment shall not be used as a basis for approval by the AHJ.

Informational Note: See 90.7, Examination of Equipment for Safety, and 110.3, Examination, Identification, Installation, and Use of Equipment. See definitions of Approved, Identified, Labeled and Listed.

(REASON FOR CHANGE: To add clarity and provide more positive options for enforcement and approval of unlisted equipment.)

Article 230.71 (A); add the following exception:

Exception: Multi-occupant buildings. Individual service disconnecting means is limited to six for each occupant. The number of individual disconnects at one location may exceed six.

(REASON FOR CHANGE: This is currently the accepted installation practice of the region. No noteworthy complaints have surfaced. It is more reasonable than the current NEC requirements. It allows more than six disconnects grounded at one location. This also allows designers more flexibility in the placement of electrical meters and main service disconnects.)

Article 240.91; delete the article.

(REASON FOR CHANGE: Present day equipment is not listed and has not been evaluated for the use. Removing this article may prevent both installers and AHJs from misapplying the Code.)

Article 300.11; add the following exception:

Exception: Ceiling grid support wires may be used for structural supports when the associated wiring is located in that area, not more than two raceways or cables supported per wire, with a maximum nominal metric designation 16 (trade size ½").

(REASON FOR CHANGE: To provide limited support of raceways and cables by ceiling grid support wire.)

Article 310.15(B)(7); amended to read as follows:

- (7) 120/240-Volt, 3-Wire, Single-Phase Dwelling Services and Feeders. For dwelling units, conductors, as listed in Table 310.15(B)(7), shall be...(text unchanged)... provided the requirements of 215.2, 220.61, and 230.42 are met. The Article shall not be used in conjunction with 220.82.

(REASON FOR CHANGE: To provide a more reasonable margin of safety for dwelling service and feeder conductor allowable ampacities.)

Article 310.106(B) Conductor Material: amended section to read as follows:

Section 310.106(B) Conductor Material. Conductors in this article shall be of copper. The use of Aluminum or Copper Clad Aluminum wire beyond the line side of the utility contractors connection point to the meter base is strictly prohibited within the City of Wylie.

Article 500.8(A)(3); amended to read as follows:

500.8 Equipment. Articles 500 through 504 require equipment construction and installation standards that ensure safe performance under conditions of proper use and maintenance.

Informational Note #1: It is important that inspection authorities and users exercise more than ordinary care with regard to installation and maintenance.

Informational Note #2: Since there is no consistent relationship between explosion properties and ignition temperature, the two are independent requirements.

Informational Note #3: Low ambient conditions require special consideration. Explosion proof or dust-ignition proof equipment may not be suitable for use at temperatures lower than -25°C (-13°F) unless they are identified for low-temperature service. However, at low ambient temperatures, flammable concentrations of vapors may not exist in a location classified as Class 1, Division 1 at normal ambient temperature.

(A) Suitability. Suitability of identified equipment shall be determined by one of the following:

1. Equipment listing or labeling.
2. Evidence of equipment evaluation from a qualified testing laboratory or inspection agency concerned with product evaluation.
3. Evidence acceptable to the authority having jurisdiction such as a manufacturer's self-evaluation or an engineering judgment signed and sealed by a qualified Licenses Professional Engineer.

Informational Note: Additional documentation for equipment may include certificates demonstrating compliance with applicable equipment standards, indicating special

conditions of use, and other pertinent information. Guidelines for certificates may be found in ANSI/ISA 12.00.02, Certificate Standard for AEX Equipment for Hazardous (Classified) Locations.

(REASON FOR CHANGE: To better define the qualifications for an engineering judgment.)

Article 505.7(A); amended to read as follows:

505.7 Special Precaution. Article 505 requires equipment construction and installation that ensures safe performance under conditions of proper use and maintenance.

Informational Note #1: It is important that inspection authorities and users exercise more than ordinary care with regard to the installation and maintenance of electrical equipment in hazardous (classified) locations.

Informational Note #2: Low ambient conditions require special consideration. Electrical equipment depending on the protection techniques described by 505.8(A) may not be suitable for use at temperatures lower than -20°C (-4°F) unless they are identified for use at lower temperatures. However, at low ambient temperatures, flammable concentrations of vapors may not exist in a location classified Class 1, Zones 0, 1, or 2 at normal ambient temperature.

Implementation of Zone Classification System. Classification of areas, engineering and design, selection of equipment and wiring methods, installation, and inspection shall be performed by a qualified Licensed Professional Engineer.

(REASON FOR CHANGE: To better identify who is qualified to implement Zone Classification Systems.)

Article 680.25(A); amended to read as follows:

680.25 Feeders. Feeders shall be installed in rigid metal conduit or intermediate metal conduit. The following wiring methods shall be permitted if not subject to physical damage:

(A) Wiring Methods.

1. Feeders shall be installed in rigid metal conduit or intermediate metal conduit. The following wiring methods shall be permitted if not subject to physical damage.
  - a. Liquid tight flexible nonmetallic conduit
  - b. Rigid polyvinyl chloride conduit
  - c. Reinforced thermosetting resin conduit
  - d. Electrical metallic tubing where installed on or within a building
  - e. Electrical nonmetallic tubing where installed within a building
  - f. Type MC cable where installed within a building and if not subject to corrosive environment
  - g. Nonmetallic-sheathed cable
  - h. Type SE cable

Exception: An existing feeder between an existing remote panel board and service equipment shall be permitted to run in flexible metal conduit or an approved cable assembly that includes an equipment grounding conductor within its outer sheath. The equipment grounding conductor shall comply with 250.25(A)(5).

(REASON FOR CHANGE: To allow for more flexibility of wiring methods associated with this type of installation.)

(Ord. No. 2013-13, §§ 2, 3, 2-26-2013)

Secs. 22-123—22-140. - Reserved.